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EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2616

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,393

Applicant(s)

GOODKNIGHT, GREGORY
WARREN

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-21 are objected to because of the following informalities:

Regarding claims 1, 11, 12, and 21, the claims recite *a device capable of receiving...* (For example, see claim 1, lines 8, 14, and 17.), however the term “capable” is not a positive limitation. The claim should be corrected to *a device which receives....* Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 11, 12, and 21, the claims recite *receiving a data stream that is not to be transmitted over a PSTN and to convert the packet data stream...* (For example, see claim 1, lines 2-3.) The relationship between the “data stream” and “the packet data stream” is unclear from the context of the claim. Also, the claims recite *whether the network device is participating in a public switched transmission session with at least one other network device* (For example, see claim 1, lines 12-14.) It is unclear from the context of the claim whether the “the at least one other network device” is a completely different network device or the same “at least one other

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network device” as mentioned in line 12. Also, the claims recite *sending the packet data stream across the public switched transmission network to the at least one other network device if it is determined that the at least one other network device is capable of converting the altered data stream to the packet data stream* (For example, see claim 1, lines 15-18.) However, lines 2 and 3 specify that “the data stream is not to be transmitted over a PSTN and to convert the packet data stream to an altered data stream.” And, should one transmit the “packet data stream” the receiving device would not convert the “altered data stream” to the “packet data stream” since the “altered data stream” is never received. Also, the claims recite *sending the altered data stream across the public switched transmission network to the at least one other network device, if it is determined that the at least one other network device is not capable of converting the altered data stream to the packet data stream* (For example, see claim 1, lines 19-22.) The purpose of transmitting an “altered data stream” to “at least one other network device” incapable of utilizing an “altered data stream” is unclear from the context of the claim. For the purpose of this examination, the Examiner will interpret *sending the altered data stream...if it is determined that the other network device is capable of converting the altered data stream*. Further clarification and explanation is requested.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6, 9-13, and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhagavath et al. (US 6,374,288 B1), hereinafter referred to as Bhagavath.

Regarding claims 1, 11, 12, and 21, Bhagavath discloses digital subscriber line system and method, which comprises:

A converter operable to receive a data stream that is not to be transmitted over a public switched telephone network and to convert the packet data stream to an altered data stream to be transmitted over a public switched telephone network (Referring to Figures 1-2F, customer xDSL modem **102** receives TCP/IP/Ethernet data packets from the customer, which must be converted to xDSL format for transmission to the Digital Subscriber Line Access Multiplexer (DSLAM) **103** located at a telephone company central office (PSTN) to the Internet network **120**. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1;) and

A controller operable to:

Send signals through the converter in the altered data stream identifying the network device as a device which receives a packet data stream and converting it into an altered data stream (Referring to Figures 1-2F, the customer xDSL modem **102** (converter) negotiates handshake (signals in the altered data stream identifying the network device) start up procedures with the platform xDSL modem **104(X)**. See column 7, lines 24-30;)

Determine, using signals received from at least one other network device, whether the network device is participating in a public switched transmission session with at least one other network device which converts the altered data stream to the packet data

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stream (Referring to Figures 1-2F, the handshake start up procedure responses from the platform xDSL modem **104(X)**, part of server platform **100** (the at least one other network device) connected to the central office (PSTN), determines whether a session between the customer modem (network device which converts between the altered data stream and packet data stream) and platform modems exists. See column 7, lines 24-35;)

Send the packet data stream across the public switched transmission network to the at least one other network device if it is determined that the at least one other network device converts the altered data stream to the packet data stream (Referring to Figures 1-2F, the customer xDSL modem **102** negotiates handshake start up procedures with the platform xDSL modem **104(X)** for transmission of TCP/IP/Ethernet packet data streams. See column 7, lines 35-51 and Table 1;) and

Send the altered data stream across the public switched transmission network to the at least one other network device, if it is determined that the at least one other network device can convert the altered data stream to the packet data stream (Referring to Figures 1-2F, customer xDSL modem **102** receives TCP/IP/Ethernet data packets from the customer, which must be converted to and from xDSL format for transmission to and reception from the Digital Subscriber Line Access Multiplexer (DSLAM) **103** located at a telephone company central office (PSTN) to the Internet network **120**. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 2, Bhagavath discloses *the network device as a voice gateway* (Referring to Figures 1-2F, customer xDSL modem **102** (logically equivalent to a gateway) receives voice data from the customer, which must be converted to xDSL format for

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transmission to the Digital Subscriber Line Access Multiplexer (DSLAM) **103** located at a telephone company central office the Internet network **120**. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 3, Bhagavath discloses *the packet data stream further comprising coded voice* (Referring to Figures 1-2F, customer xDSL modem **102** encodes voice data from the customer. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 4, Bhagavath discloses *the packet data stream further comprising data* (Referring to Figures 1-2F, customer xDSL modem **102** encodes data from the customer. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 5, Bhagavath discloses *the converter further comprising a voice coder/decoder* (Referring to Figures 1-2F, customer xDSL modem **102** encodes/decodes voice data from and to the customer. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 6, Bhagavath discloses *the converter further comprising a modem* (Referring to Figures 1-2F, customer xDSL modem **102**.)

Regarding claim 9, Bhagavath discloses *the controller is a processor configured to execute all the control operations* (Referring to Figures 1-2F, the customer xDSL modem **102** negotiates handshake start up procedures. See column 7, lines 35-51 and Table 1.)

Regarding claim 10, Bhagavath discloses *the controller further comprising more than one integrated circuit* (Referring to Figures 1-2F, customer xDSL modem **102** comprising multiple circuits.)

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Regarding claim 13, Bhagavath discloses *dialing out of a packet domain to a public switched telephone network domain* (Referring to Figures 1-2F, customer xDSL modem **102** receives TCP/IP/Ethernet data packets from the customer, which must be converted to xDSL format for transmission to the Digital Subscriber Line Access Multiplexer (DSLAM) **103** located at a telephone company central office (PSTN) to the Internet network **120**. See column 5, lines 60-67; column 6, lines 1-5; column 7, lines 24-35; and Table 1.)

Regarding claim 17, Bhagavath discloses *gathering information on the at least one other network device and storing the information for future use in identifying the other network device as a packet device* (Referring to Figure 3A, the bit rate tables **202(A)** and **204(X)** of available rates for the customer modem and the platform modem are stored. See column 8, lines 40-42.)

Regarding claim 18, Bhagavath discloses *accessing a storage of known network devices based upon the identifying signals; locating information about the at least one other network device; and using that information in altering the communication session* (Referring to Figure 3B, the bit rate tables **202(A)** and **204(X)** of available rates for the customer modem and the platform modem are stored and utilized when a higher rate is requested. See column 8, lines 40-42 and 47-50.)

Regarding claim 19, Bhagavath discloses *wherein using transmission of identifying signals further comprises the first network device sending the identifying signals* (Referring to Figures 1-2F, the customer xDSL modem **102** negotiates handshake start up procedures. See column 7, lines 35-51 and Table 1.)

Regarding claim 20, Bhagavath discloses *wherein using transmission of identifying signals further comprises the first network device receiving and responding to identifying signals*

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sent by another network device (Referring to Figures 1-2F, the customer xDSL modem 102 negotiates handshake start up procedures with the platform xDSL modem 104(X). See column 7, lines 35-51 and Table 1.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagavath (US 6,374,288 B1) in view of Sebestyen (US 5,847,752).

Regarding claims 7 and 14 as explained above in the rejection statement of claims 1 and 12, Bhagavath discloses all of the claim limitations of claims 1 and 12 (parent claim).

Bhagavath does not disclose *the controller utilizing ITU V.8 protocols*.

Sebestyen teaches a method for call setup and control of video-telephone communication utilizing the ITU-T V.8 signaling protocol (See column 10, lines 19-24.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the video-telephone communication utilizing ITU-T V.8 signaling protocol of Sebestyen in the system of Bhagavath. One of ordinary skill in the art would have been motivated to do so in order to comply with the well-known ITU-T V.8 standard.

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8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagavath (US 6,374,288 B1).

Regarding claim 8 as explained above in the rejection statement of claim 1, Bhagavath discloses all of the claim limitations of claim 1 (parent claim).

Bhagavath does not disclose *the controller using robbed-bit signaling*.

Bhagavath teaches a voice-over-IP telephony which utilizes call independent signaling (See Figures 1-2F and Abstract.)

It would have been obvious choice in design to one of ordinary skill in the art at the time the invention was made to implement robbed-bit signaling in the system of Bhagavath. One of ordinary skill in the art would have been motivated to do so in order to efficiently utilize the transmission bandwidth for signaling, voice band, and digital data traffic.

9. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagavath (US 6,374,288 B1) in view of Brent et al. (US 6,272,358 B1).

Regarding claim 15 as explained above in the rejection statement of claim 12, Bhagavath discloses all of the claim limitations of claim 12 (parent claim).

Bhagavath does not *eliminating a conversion through a voice coder/decoder*.

Brent teaches a frame selector which alters the communication session between devices via a by-pass function of PCM conversion to transmit the frame over a high-speed data network (See column 2, lines 59-64.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the by-pass function of Brent in the system of Bhagavath. One of ordinary skill in

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the art at the time of the invention would have been motivated to do so in order to minimize quantification error and delay as taught by Brent (See column 1, lines 41-46.)

Regarding claim 16 as explained above in the rejection statement of claim 12, Bhagavath discloses all of the claim limitations of claim 12 (parent claim).

Bhagavath does not *eliminating a conversion through a modem*.

Brent teaches a frame selector which alters the communication session between devices via a by-pass function of PCM conversion to transmit the frame over a high-speed data network (See column 2, lines 59-64.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the by-pass function of Brent in the server platform of Bhagavath. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to minimize quantification error and delay as taught by Brent (See column 1, lines 41-46.)

Response to Arguments

10. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donald L Mills

DeM

June 5, 2006

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